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10/700,233	11/03/2003	James Michael Quackenbush	019377-00100	3765

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EXAMINER

RONESI, VICKEY M

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/700,233

Applicant(s)

QUACKENBUSH, JAMES  
MICHAEL

Examiner

Vickey Ronesi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/3/03, 11/7/2005
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Upon reconsideration, the restriction requirement that was made by telephone on 10/26/2005 has since been withdrawn by the examiner. Claims 1-35 have been examined.

### ***Claim Objections***

2. Applicant is advised that should claim 2 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Similarly, claims 3 and 14 are the same,.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 32-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 11 and 20, they appear to improperly recite a Markush group. Consequently, it is impossible to determine which elements of the group are required by the claims. When materials recited in a claim are so related as to constitute a proper Markush group,

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they may be recited in the conventional manner, or alternatively. For example, if “wherein R is a material selected from the group consisting of A, B, C and D” is a proper limitation, then “wherein R is A, B, C or D” shall also be considered proper (emphasis added). See MPEP § 2173.05(h).

With respect to claims 32 and 34, the phrase “the hardened composition” lacks antecedent basis.

With respect to claim 33, the phrase “The scratch resistant countertop of Claim 1” lacks antecedent basis since there is no countertop in claim 1.

With respect to claim 35, it is rejected for being dependent on a rejected claim.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18, 19, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (GB 2 110 693) in view of Nonken (US 3,812,314).

Egan discloses an acid-resistant flooring composition comprising an epoxy resin such as Araldite (page 1, line 49), sand filler, and granite chips (page 1, lines 29-32).

Egan is silent with respect to the addition of at least one carboxylic acid anhydride.

Nonken teaches that Araldite resins contain either a dibasic acid anhydride or polyamine as a hardener such as hexahydrophthalic anhydride (col. 5, lines 21-27).

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Given that Egan teaches the use of Araldite resins and further given that Nonken teaches that Araldite resins contain a dibasic acid anhydride such as hexahydrophthalic anhydride, it would have been obvious to one of ordinary skill in the art to utilize an acid anhydride as the Araldite hardener of Egan, there being no expected or surprising results by using the acid anhydride over polyamine, and thereby arrive at the presently cited claims.

5. Claims 19-22 and 27 are obvious over Egan (GB 2 110 693) in view of Nonken (US 3,812,314) and further in view of Hollstein et al (US 5,354,939).

The discussion with respect to Egan and Nonken in paragraph 4 above is incorporated here by reference.

While the combined teachings of Egan and Nonken provide for an acid anhydride such as hexahydrophthalic anhydride, it fails to teach other acid anhydride hardeners for epoxy resin.

Hollstein et al discloses epoxy resin compositions and teaches that typical hardeners include anhydrides of polycarboxylic acids such as phthalic anhydride and others (col. 4, lines 14-26). It is the examiner's position that it is obvious to use more than one acid anhydride. It is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F, 2d 506,509, 173 USPQ 356, 359 (CCPA 1972). Moreover, the use of flake phthalic anhydrides are commonly used in the art and are obvious since they have more surface area.

Given that Egan and Nonken teach acid anhydride epoxy hardeners and further given the teachings by Hollstein et al regarding known acid anhydride epoxy hardeners, it would have been obvious to one of ordinary skill in the art to utilize the known acid anhydride epoxy

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hardeners as taught by Hollstein in the flooring composition taught by Egan and thereby arrive at the presently cited claims.

6. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (GB 2 110 693) in view of Nonken (US 3,812,314) and further in view of Betts (US 3,924,880).

The discussion with respect to Egan and Nonken in paragraph 4 above is incorporated here by reference.

Egan fails to disclose the use of its acid-resistant composition in a countertop or a heat-activated catalyst.

Betts teaches that laboratory counter tops are made of highly acid resistant materials such as epoxy resin (col. 1, lines 6-14). With respect to the heat-activated catalyst, it is considered that it would have been well within the capabilities of one of ordinary skill in the art to use heat and a heat-activated to prevent premature curing or to accelerate curing.

Given that acid-resistant compositions like those taught by Egan are used in laboratory countertops as taught by Betts, it would have been obvious to one of ordinary skill in the art to utilize Egan's composition in a countertop and thereby arrive at the presently cited claims.

7. Claims 1-4, 10-17, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (GB 2 110 693) in view of Nonken (US 3,812,314) and further in view of Wypych (*Handbook of Fillers*).

The discussion with respect to Egan and Nonken in paragraph 4 above is incorporated here by reference.

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Egan discloses that granite chips have a particle size of 3-20 mm (page 1, lines 29-32), wherein the volume ratio of granite to sand ranges from 1.0:1.2 to 1.0:2.7 (page 1, lines 36-38). Note that granite and sand have approximately the same density (about 2.6 g/m<sup>3</sup>) and therefore, even though the ratio of granite to sand is less than presently claimed, the ratio reads on the presently claimed ratio if separated out when a portion of the sand is in the larger particle portion.

Egan is silent with respect to the size or size distribution of the size particles and to the use of its composition in a countertop.

Wypych teaches that sand conventionally has a particle size of 2-90 microns (page 144).

Given that Egan teaches the use of sand and further given that sand conventionally has a particle size of 2-90 microns, it would have been obvious to one of ordinary skill in the art to utilize conventional particle sizes of sand, including those in the presently claimed, and thereby arrive at the presently cited claims.

8. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (GB 2 110 693) in view of Nonken (US 3,812,314) and further in view of Wypych (*Handbook of Fillers*) and Betts (US 3,924,880).

The discussion with respect to Egan, Nonken, and Wypych in paragraph 7 above is incorporated here by reference.

Egan fails to disclose the use of its acid-resistant composition in a countertop or a heat-activated catalyst.

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Betts teaches that laboratory counter tops are made of highly acid resistant materials such as epoxy resin (col. 1, lines 6-14). With respect to the heat-activated catalyst, it is considered that it would have been well within the capabilities of one of ordinary skill in the art to utilize heat and a heat-activated catalyst to prevent premature curing or to accelerate curing.

Given that acid-resistant compositions like those taught by Egan are used in laboratory countertops as taught by Betts, it would have been obvious to one of ordinary skill in the art to utilize Egan's composition in a countertop and thereby arrive at the presently cited claims.

9. Claims 5-9 and 27-31 are obvious over Egan (GB 2 110 693) in view of Nonken (US 3,812,314) and further in view of Wypych (*Handbook of Fillers*) and Hollstein et al (US 5,354,939).

The discussion with respect to Egan, Nonken, and Wypych in paragraph 7 above is incorporated here by reference.

While the combined teachings of Egan and Nonken provide for an acid anhydride such as hexahydrophthalic anhydride, it fails to teach other epoxy resin hardeners.

Hollstein et al discloses epoxy resin compositions and teaches that typical hardeners include anhydrides of polycarboxylic acids such as phthalic anhydride and others (col. 4, lines 14-26). It is the examiner's position that it is obvious to use more than one acid anhydride. It is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506,509, 173 USPQ 356, 359 (CCPA 1972). Moreover, the use of flake phthalic anhydrides are commonly used in the art and are obvious since they have more surface area.



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Given that Egan and Nonken teach acid anhydride epoxy hardeners and further given the teachings by Hollstein et al regarding known acid anhydride epoxy hardeners, it would have been obvious to one of ordinary skill in the art to utilize the known acid anhydride epoxy hardeners as taught by Hollstein in the flooring composition taught by Egan and thereby arrive at the presently cited claims.

*Contact Information*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/20/2006

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